RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/568,337_
Source: _1FWP_
Date Processed by STIC: _2/23/06_

ENTERED

IFWP

```
 3 <110> APPLICANT: Windisch, Jorg
 4        Schoergendorfer, Kurt
 5        Palma, Norbert
 6        Knauseder, Franz
 7        Boehling, Hans
 9 <120> TITLE OF INVENTION: Expression vectors, transformed host cells and fermentation
10        process for the production of recombinant polypeptides
12 <130> FILE REFERENCE: BP/G-33314 LNG 61312.US
```
C--> 14 `<140> CURRENT APPLICATION NUMBER: US/10/568,337`
C--> 14 `<141> CURRENT FILING DATE: 2006-02-13`
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14 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/009067
15 <151> PRIOR FILING DATE: 2004-08-12
17 <150> PRIOR APPLICATION NUMBER: US 60/494,914
18 <151> PRIOR FILING DATE: 2003-08-13
20 <160> NUMBER OF SEQ ID NOS: 19
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 495
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial
29 <220> FEATURE:
30 <223> OTHER INFORMATION: DNA encoding human interferon alpha 2B with altered codon
usage
32 <400> SEQUENCE: 1
33 tgcgatctgc cgcaaaccca cagcctgggt agccggcgaa ccttgatgct tctggcacag     60
35 atgcggcgaa tctctctttt ctcttgctta aaggatcgac atgacttcgg tttcccgcag    120
37 gaggagttcg gtaaccagtt ccaaaaggct gaaaccatcc cggtattgca tgagatgatc    180
39 cagcagatct tcaacctgtt cagcactaag gactcttctg ctgcttggga tgagaccctg    240
41 cttgacaaat tctacactga actgtaccag cagctgaacg acctggaagc ctgcgtgatc    300
43 cagggtgtgg gtgtgactga gactccgctg atgaaggagg actctattct ggctgtgcga    360
45 aaatacttcc aacggatcac tctgtatctg aaagagaaga aatacagccc gtgcgcctgg    420
47 gaggttgtcc gagcagaaat catgcggtct ttctctttgt ctaccaactt gcaagaatct    480
49 ttacgaagca aggaa                                                      495
52 <210> SEQ ID NO: 2
53 <211> LENGTH: 27
54 <212> TYPE: PRT
55 <213> ORGANISM: Pseudomonas diminuta
57 <400> SEQUENCE: 2
59 Met Leu Arg Val Leu His Arg Ala Ala Ser Ala Leu Val Met Ala Thr
60 1               5                   10                  15
63 Val Ile Gly Leu Ala Pro Ala Val Ala Phe Ala
64             20                  25
67 <210> SEQ ID NO: 3
68 <211> LENGTH: 81
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 69 <212> TYPE: DNA
 70 <213> ORGANISM: Pseudomonas diminuta
 72 <400> SEQUENCE: 3
 73 atgctgagag ttctgcaccg ggcggcgtcc gccttggtta tggcgactgt gatcggcctt    60
 75 gcgcccgccg tcgcctttgc g                                              81
 78 <210> SEQ ID NO: 4
 79 <211> LENGTH: 81
 80 <212> TYPE: DNA
 81 <213> ORGANISM: Artificial
 83 <220> FEATURE:
 84 <223> OTHER INFORMATION: DNA encoding signal sequence of gac gene of Pseudomonas
diminuta
 85        with altered codon usage
 87 <400> SEQUENCE: 4
 88 atgctgagag ttctgcaccg ggcggcgtcc gccttggtta tggcgactgt gatcggcctt    60
 90 gcgcccgcgg tcgcctttgc g                                              81
 93 <210> SEQ ID NO: 5
 94 <211> LENGTH: 100
 95 <212> TYPE: DNA
 96 <213> ORGANISM: Pseudomonas diminuta
 98 <400> SEQUENCE: 5
 99 atcctggttc gtacgcgccg cctacaagtg gtgatctagg ggaacgttcc gggggcgtcg    60
101 ctgcaacggc gtctccggat ctgggtgaga ggggaaatcc                        100
104 <210> SEQ ID NO: 6
105 <211> LENGTH: 209
106 <212> TYPE: DNA
107 <213> ORGANISM: Pseudomonas diminuta
109 <400> SEQUENCE: 6
110 tctagaccaa caacatcttc aacgtctacc cgaccaagat tcaggagccg tcggccgacc    60
112 tgggcaatgg gatgtacagc gggcttgcgc cgttcggctt caccggcgga tcctggttcg   120
114 tacgcgccgc ctacaagtgg tgatctaggg gaacgttccg ggggcgtcgc tgcaacggcg   180
116 tctccggatc tgggtgagag gggaaatcc                                    209
119 <210> SEQ ID NO: 7
120 <211> LENGTH: 23
121 <212> TYPE: DNA
122 <213> ORGANISM: Artificial
124 <220> FEATURE:
125 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
127 <400> SEQUENCE: 7
128 taactgtcag accaagttta ctc                                           23
131 <210> SEQ ID NO: 8
132 <211> LENGTH: 20
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
139 <400> SEQUENCE: 8
140 gcgtttcggt gatgacggtg                                               20
143 <210> SEQ ID NO: 9
144 <211> LENGTH: 23
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RAW SEQUENCE LISTING   DATE: 02/23/2006
PATENT APPLICATION: US/10/568,337   TIME: 08:02:48

Input Set : E:\61312.us.sequences.ST25.txt
Output Set: N:\CRF4\02232006\J568337.raw

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145 <212> TYPE: DNA
146 <213> ORGANISM: Artificial
148 <220> FEATURE:
149 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
151 <400> SEQUENCE: 9
152 tcatgtttga cagcttatca tcg                                     23
155 <210> SEQ ID NO: 10
156 <211> LENGTH: 19
157 <212> TYPE: DNA
158 <213> ORGANISM: Artificial
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
163 <400> SEQUENCE: 10
164 ggtcgaggtg gcccggctc                                          19
167 <210> SEQ ID NO: 11
168 <211> LENGTH: 36
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
175 <400> SEQUENCE: 11
176 gggggtcta gaccaacaac atcttcaacg tctacc                        36
179 <210> SEQ ID NO: 12
180 <211> LENGTH: 32
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
187 <400> SEQUENCE: 12
188 cccccgaat tcactagtac gcgtctctct cc                            32
191 <210> SEQ ID NO: 13
192 <211> LENGTH: 315
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial
196 <220> FEATURE:
197 <223> OTHER INFORMATION: DNA comprising part of gac gene of Pseudomonas diminuta
199 <400> SEQUENCE: 13
200 gggggtcta gaccaacaac atcttcaacg tctacccgac caagattcag gagccgtcgg   60
202 ccgacctggg caatgggatg tacagcgggc ttgcgccgtt cggcttcacc ggcggatcct  120
204 ggttcgtacg cgccgcctac aagtggtgat ctaggggaac gttccggggg cgtcgctgca  180
206 acggcgtctc cggatctggg tgagagggga aatccatgct gagagttctg caccgggcgg  240
208 cgtccgcctt ggttatggcg actgtgatcg gccttgcgcc cgcggagaga gacgcgtact  300
210 agtgaattcg ggggg                                                   315
213 <210> SEQ ID NO: 14
214 <211> LENGTH: 11
215 <212> TYPE: DNA
216 <213> ORGANISM: Artificial
218 <220> FEATURE:
219 <223> OTHER INFORMATION: Oligonucleotide, part of PCR primer
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Output Set: N:\CRF4\02232006\J568337.raw

221 <400> SEQUENCE: 14
222 tcgcctttgc g   11
225 <210> SEQ ID NO: 15
226 <211> LENGTH: 23
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Oligonucleotide, PCR primer
233 <400> SEQUENCE: 15
234 ttgcgcccgc ggtcgccttt gcg   23
237 <210> SEQ ID NO: 16
238 <211> LENGTH: 4
239 <212> TYPE: PRT
240 <213> ORGANISM: Pseudomonas diminuta
242 <400> SEQUENCE: 16
244 Val Ala Phe Ala
245 1
248 <210> SEQ ID NO: 17
249 <211> LENGTH: 540
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial
253 <220> FEATURE:
254 <223> OTHER INFORMATION: DNA comprising nucleotide sequence encoding human interferon
255   alpha 2B
257 <400> SEQUENCE: 17
258 gggggccgc ggtcgccttt gcgtgcgatc tgccgcaaac ccacagcctg ggtagccggc   60
260 gaaccttgat gcttctggca cagatgcggc gaatctctct tttctcttgc ttaaaggatc   120
262 gacatgactt cggtttcccg caggaggagt tcggtaacca gttccaaaag gctgaaacca   180
264 tcccggtatt gcatgagatg atccagcaga tcttcaacct gttcagcact aaggactctt   240
266 ctgctgcttg ggatgagacc ctgcttgaca aattctacac tgaactgtac cagcagctga   300
268 acgacctgga agcctgcgtg atccagggtg tgggtgtgac tgagactccg ctgatgaagg   360
270 aggactctat tctggctgtg cgaaaatact tccaacggat cactctgtat ctgaaagaga   420
272 agaaatacag cccgtgcgcc tgggaggttg tccgagcaga aatcatgcgg tctttctctt   480
274 tgtctaccaa cttgcaagaa tctttacgaa gcaaggaata atacgcgtga attcggggggg   540
277 <210> SEQ ID NO: 18
278 <211> LENGTH: 807
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial
282 <220> FEATURE:
283 <223> OTHER INFORMATION: DNA encoding fusion protein comprising signal sequence of
gac
284   gene of Pseudomonas diminuta and human interferon alpha 2B
287 <220> FEATURE:
288 <221> NAME/KEY: CDS
289 <222> LOCATION: (210)..(788)
291 <400> SEQUENCE: 18
292 tctagaccaa caacatcttc aacgtctacc cgaccaagat tcaggagccg tcggccgacc   60
294 tgggcaatgg gatgtacagc gggcttgcgc cgttcggctt caccggcgga tcctggttcg   120
296 tacgcgccgc ctacaagtgg tgatctaggg gaacgttccg ggggcgtcgc tgcaacggcg   180
298 tctccggatc tgggtgagag gggaaatcc atg ctg aga gtt ctg cac cgg gcg   233

```
299                               Met Leu Arg Val Leu His Arg Ala
300                               1           5
302 gcg tcc gcc ttg gtt atg gcg act gtg atc ggc ctt gcg ccc gcg gtc      281
303 Ala Ser Ala Leu Val Met Ala Thr Val Ile Gly Leu Ala Pro Ala Val
304      10              15                  20
306 gcc ttt gcg tgc gat ctg ccg caa acc cac agc ctg ggt agc cgg cga      329
307 Ala Phe Ala Cys Asp Leu Pro Gln Thr His Ser Leu Gly Ser Arg Arg
308 25                  30                  35                  40
310 acc ttg atg ctt ctg gca cag atg cgg cga atc tct ctt ttc tct tgc      377
311 Thr Leu Met Leu Leu Ala Gln Met Arg Arg Ile Ser Leu Phe Ser Cys
312                  45                  50                  55
314 tta aag gat cga cat gac ttc ggt ttc ccg cag gag gag ttc ggt aac      425
315 Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Asn
316              60                  65                  70
318 cag ttc caa aag gct gaa acc atc ccg gta ttg cat gag atg atc cag      473
319 Gln Phe Gln Lys Ala Glu Thr Ile Pro Val Leu His Glu Met Ile Gln
320          75                  80                  85
322 cag atc ttc aac ctg ttc agc act aag gac tct tct gct gct tgg gat      521
323 Gln Ile Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp
324      90                  95                  100
326 gag acc ctg ctt gac aaa ttc tac act gaa ctg tac cag cag ctg aac      569
327 Glu Thr Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn
328 105                 110                 115                 120
330 gac ctg gaa gcc tgc gtg atc cag ggt gtg ggt gtg act gag act ccg      617
331 Asp Leu Glu Ala Cys Val Ile Gln Gly Val Gly Val Thr Glu Thr Pro
332                 125                 130                 135
334 ctg atg aag gag gac tct att ctg gct gtg cga aaa tac ttc caa cgg      665
335 Leu Met Lys Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg
336                 140                 145                 150
338 atc act ctg tat ctg aaa gag aag aaa tac agc ccg tgc gcc tgg gag      713
339 Ile Thr Leu Tyr Leu Lys Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu
340          155                 160                 165
342 gtt gtc cga gca gaa atc atg cgg tct ttc tct ttg tct acc aac ttg      761
343 Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser Leu Ser Thr Asn Leu
344      170                 175                 180
346 caa gaa tct tta cga agc aag gaa taa tacgcgtact agtgaattc             807
347 Gln Glu Ser Leu Arg Ser Lys Glu
348 185                 190
351 <210> SEQ ID NO: 19
352 <211> LENGTH: 192
353 <212> TYPE: PRT
354 <213> ORGANISM: Artificial
356 <220> FEATURE:
357 <223> OTHER INFORMATION: Synthetic Construct
359 <400> SEQUENCE: 19
361 Met Leu Arg Val Leu His Arg Ala Ala Ser Ala Leu Val Met Ala Thr
362 1           5                   10                  15
365 Val Ile Gly Leu Ala Pro Ala Val Ala Phe Ala Cys Asp Leu Pro Gln
366          20                  25                  30
```

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Input Set : **E:\61312.us.sequences.ST25.txt**
Output Set: **N:\CRF4\02232006\J568337.raw**

<u>Invalid <213> Response:</u>
**Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.**

Seq#:1,4,7,8,9,10,11,12,13,14,15,17,18,19

VERIFICATION SUMMARY   DATE: 02/23/2006
PATENT APPLICATION: US/10/568,337   TIME: 08:02:49

Input Set : E:\61312.us.sequences.ST25.txt
Output Set: N:\CRF4\02232006\J568337.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date